



MMIC COAXIAL

Power Splitter/Combiner **ZS4RKU-183-S+**

50Ω 4 Way-0° DC to 18 GHz

SMA Female

KEY FEATURES

- Wide Bandwidth, DC to 18 GHz
- Excellent Isolation, 20 dB Typ. at 9 GHz
- Excellent Amplitude Unbalance, 0.3 dB Typ. at 9 GHz
- Good Phase Unbalance, 2 deg Typ. at 9 GHz

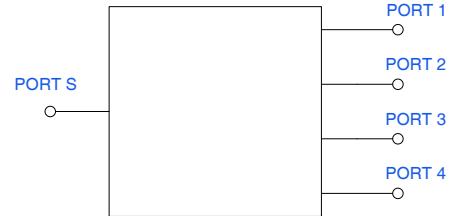


Generic photo used for illustration purposes only

APPLICATIONS

- WIMAX
- ISM
- Test and Measurement
- Radar
- WLAN
- Satellite Communications
- LTE

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

Mini-Circuits' ZS4RKU-183-S+ is a coaxial MMIC 4-way 0° splitter/combiner designed for wideband operation from DC to 18 GHz, supporting various applications that require high performance across a broad frequency range, including LTE bands, phased array radars, 5G, and instrumentation, among others. This model provides good isolation and low phase and amplitude unbalance in a rugged connector package. Manufactured using GaAs IPD technology, the ZS4RKU-183-S+ not only provides a repeatable performance but also a high level of ESD protection.

ELECTRICAL SPECIFICATIONS AT +25°C, $Z_0 = 50\Omega$

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Insertion Loss (above 6 dB)	DC - 12 12 - 18	— —	5 7	6.5 8.5	dB
Isolation	DC - 4 4 - 18	9 11	12 20	— —	dB
Phase Unbalance (±)	DC - 4 4 - 18	— —	0.3 1.9	4 19	Degree
Amplitude Unbalance (±)	DC - 4 4 - 18	— —	0.1 0.2	0.6 1.2	dB
Return Loss (Port S)	DC - 4 4 - 18	— —	10 10	— —	dB
Return Loss (Port 1 to Port 4)	DC - 4 4 - 18	— —	10 10	— —	dB

ABSOLUTE MAXIMUM RATINGS¹

Operating Case Temperature		-55°C to +100°C
Storage Temperature		-55°C to +100°C
Input Power	as splitter ²	3.1 W at 25°C
	as combiner per port ²	0.6 W at 25°C

1. Permanent damage may occur if any of these limits are exceeded.

2. Measurements performed with one port energized and other ports terminated.

REV. OR
ECO-027989
EDU5248
ZS4RKU-183-S+
URJ
251214





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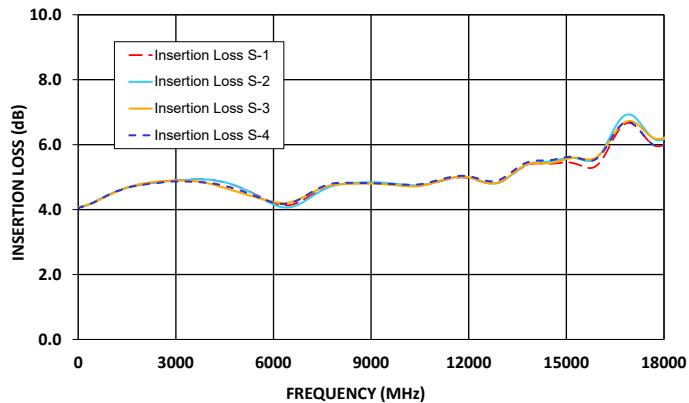
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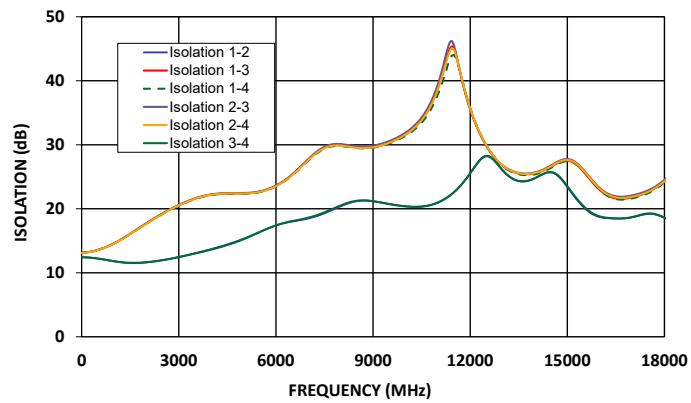
SMA Female

TYPICAL PERFORMANCE GRAPHS AT +25°C

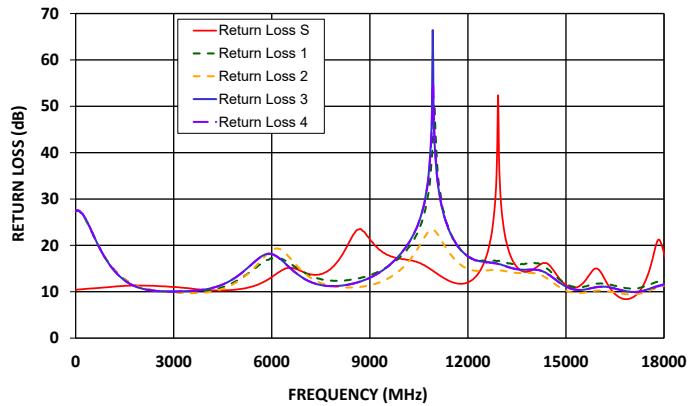
INSERTION LOSS



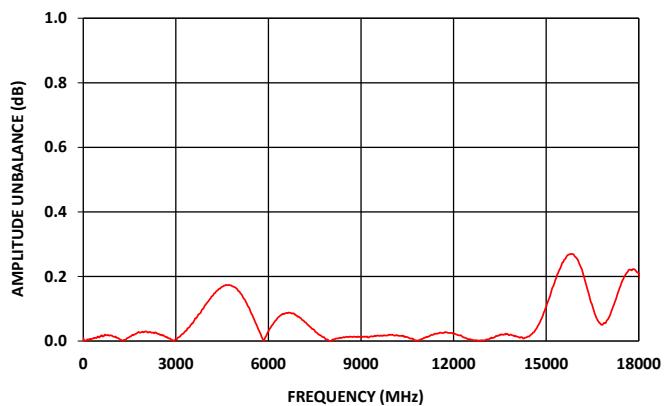
ISOLATION



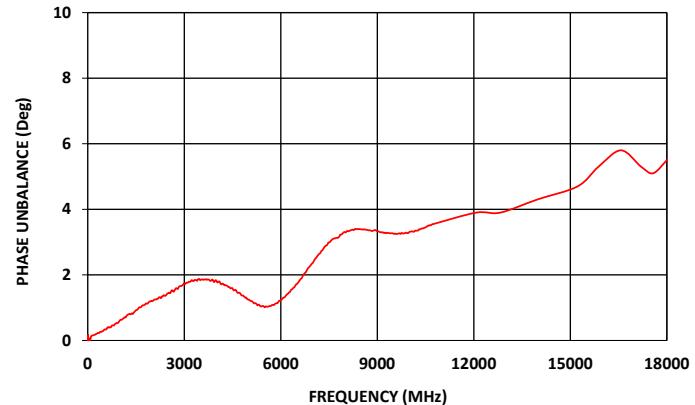
RETURN LOSS



AMPLITUDE UNBALANCE



PHASE UNBALANCE





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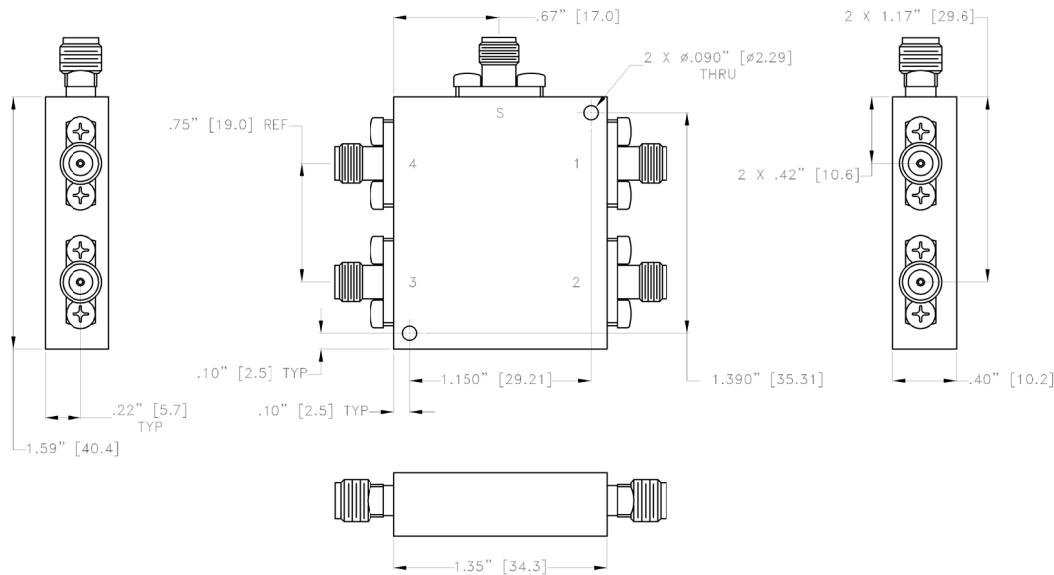
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COAXIAL CONNECTIONS

Function	Connector
Sum Port	SMA Female
Port 1 to Port 4	SMA Female

CASE STYLE DRAWING



Weight: .120 grams

Dimensions are in inches (mm). Tolerances: 2PI. ± .060 [1.52]; 3PI. ± .015 [.38]

PRODUCT MARKING*: ZS4RKU-183-S+

*Marking may contain other features or characters for internal lot control.

Mini-Circuits®

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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S5P Files) Data Set (.zip file)
Case Style	BBJ3731
RoHS Status	Compliant
Environmental Ratings	ENV28T19

NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

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